5

-33-

## CLAIMS

## What is claimed is:

- 1. A method of treating a Ras-mediated meoplasm in a mammal, comprising administering to the neoplasm a reovirus in an amount sufficient to result in reovirus-mediated oncolysis of cells of the neoplasm.
- 2. The method of Claim 1, wherein the reovirus is a human reovirus.
- 3. The method of Claim 2, wherein the reovirus is type 1.
- 10 4. The method of Claim 2, wherein the reovirus is type 2.
  - 5. The method of Claim 2/, wherein the reovirus is type 3.
  - 6. The method of Claim 1, wherein the reovirus is a non-human reovirus.
- 7. The method of Claim 6, wherein the recvirus is a mammalian recvirus.
  - 8. The method of Claim 6, wherein the reovirus is an avian reovirus.
  - 9. The method of Claim 1, wherein more than one type of reovirus is administered.

-34-

- 10. The method of Claim 1, wherein more than one strain of reovirus is administered.
- 11. The method of Claim 1, wherein the reovirus is a field isolate.
- 5 12. The method of Claim 1, wherein the reovirus is treated with a protease prior to administration.
  - 13. The method of Claim 1, wherein the neoplasm is a solid neoplasm.
- 14. The method of Claim 3, wherein the reovirus is

  10 administered by injection into the solid neoplasm.
  - 15. The method of Claim 12, wherein the reovirus is administered intravenously into the mammal.
  - 16. The method of Claim 1 wherein the neoplasm is a hematopoietic neoplasm.
- 15 17. The method of Claim 16, wherein the reovirus is administered intravenously into the mammal.
  - 18. The method of Claim 16, wherein the reovirus is administered intraperitoneally into the mammal.
- 19. The method of Claim 1, wherein the mammal is selected from the group consisting of: mice, dogs, cats,

-35-

sheep, goats, cows, horses, pigs, and non-human primates.

- 20. The method of Claim 1, wherein the mammal is a human.
- 21. The method of Claim 1, wherein the neoplasm is pancreatic cancer.
  - 22. The method of Claim 1, wherein the neoplasm is breast cancer.
  - 23. The method of Claim 1, wherein the neoplasm is brain cancer.
- 10 24. The method of Claim 1, wherein the neoplasm is selected from the group consisting of: lung cancer, prostate cancer, colorectal cancer, thyroid cancer, renal cancer, adrenal cancer, liver cancer, and leukemia.
- 15 25. The method of Claim 1, wherein approximately 103 to 1012 plaque forming units of reovirus are administered.
  - 26. The method of Claim 1, wherein the reovirus is administered in a single dose.
- 20 27. The method of Claim 1, wherein the reovirus is administered in more than one dose.

-36-

- 28. The method of Claim 1, wherein the reovirus is administered to more than one neoplasm in the mammal.
- 29. The method of Claim 1, wherein the ras-mediated neoplasm is metastatic.
- 5 30. The method of Claim 29, wherein the reovirus is administered to a single solid meoplasm.
  - 31. The method of Claim 29, wherein the reovirus is administered intravenously.
- 32. A method of treating a Ras-mediated neoplasm in a human, comprising administering to the neoplasm a reovirus in an amount sufficient to result in reovirus-mediated oncolysis of cells of the neoplasm.
  - 33. The method of Claim 32, wherein the neoplasm is a solid neoplasm.
- 15 34. The method of Claim 33, wherein the solid neoplasm is pancreatic cancer.
  - 35. The method of Claim 33, wherein the reovirus is administered by injection into the solid neoplasm.

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